

CLAIMS

What is claimed is:

1. A method for treating sickle-cell disease in a subject, comprising administering to said subject a pharmaceutical composition comprising a therapeutically effective amount of a modified annexin protein, wherein said modified annexin protein comprises an annexin protein coupled to at least one additional protein.
2. The method of claim 1, wherein said modified annexin protein is an annexin dimer.
3. The method of claim 1, wherein said additional protein is the Fc portion of immunoglobulin.
4. The method of claim 1, wherein said additional protein has a molecular weight of at least 30 kDa.
5. The method of claim 1, wherein said additional protein is an additional annexin protein.
6. The method of claim 1, wherein said annexin protein is an annexin V protein.
7. The method of claim 6, wherein said annexin V protein comprises an amino acid sequence selected from the group consisting of:
 - a) SEQ ID NO:3; and
 - b) an amino acid sequence having at least 95% sequence identity to SEQ ID NO:3.
8. The method of claim 6, wherein said additional protein is an additional annexin V protein.

9. The method of claim 8, wherein said additional annexin V protein comprises an amino acid sequence selected from the group consisting of:
 - a) SEQ ID NO:3; and
 - b) an amino acid sequence having at least 95% sequence identity to SEQ ID NO:3.
10. The method of claim 8, wherein said isolated modified annexin protein comprises an amino acid sequence selected from the group consisting of:
 - a) SEQ ID NO:6; and
 - b) an amino acid sequence having at least 95% sequence identity to SEQ ID NO:6.
11. A method for treating sickle-cell disease in a subject, comprising administering to said subject a pharmaceutical composition comprising a therapeutically effective amount of a modified annexin protein, wherein said modified annexin protein comprises an annexin protein coupled to polyethylene glycol.
12. The method of claim 11, wherein said polyethylene glycol has a molecular weight of at least 10 kDa.
13. The method of claim 11, wherein each modified annexin protein comprises at least two polyethylene glycol chains.
14. The method of claim 1, wherein said annexin protein is an annexin V protein
15. The method of claim 14, wherein said annexin V protein comprises an amino acid sequence selected from the group consisting of:

- a) an amino acid sequence selected from the group consisting of SEQ ID NO:3 and SEQ ID NO:6; and
- b) an amino acid sequence selected from the group consisting of an amino acid sequence having at least 95% sequence identity to an amino acid sequence of a).